



Docket No.: K-018

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Tae Woon KIM

Serial No. 09/055,984

Confirm. No.: 4692

Filed: April 7, 1998

For: CDMA MOBILE DATA COMMUNICATION SYSTEM AND A METHOD  
OF WIRELESS DATA COMMUNICATION USING THE SAME

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: Group Art Unit: 2665  
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: Examiner: NGUYEN, Toan D.  
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REPLY AND/OR AMENDMENT  
UNDER 37 C.F.R. §§1.111 AND/OR 1.121

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APR 18 2003

Technology Center 2600

Assistant Commissioner for Patents  
Washington, D. C. 20231

Sir:

In reply to the Office Action dated January 21, 2003, Applicant respectfully requests reconsideration and withdrawal of the rejections in view of the following remarks.

Claims 1-49 are pending this application. Claims 1-10, 13, 14, 16, 17, 21, 22, 27-32, 35, 36, 38-41, and 44-49 stand rejected under 35 U.S.C. § 103(a) over Joong et al. (U.S. Patent No. 6,134,433) (hereafter Joong) in view of Essigmann (U.S. Patent No. 5,850,391). This rejection is respectfully traversed.

The asserted combination of references fails to establish a prima facie case of obviousness, as required by Section 103.

Joong relates to a system and method for forwarding data calls intended for a mobile station based upon the type of call as identified by the call's service code. Accordingly, a data call and a voice call are differentiated if an incoming call needs to be forwarded. Thus, referring to Figure 1, Joong enables a subscriber to divert various data calls to an appropriate storage device. See column 4, lines 40-41. Additionally, a serving mobile switching center (MSC) 16 has an interworking function (IWF) 17 associated with it. Joong teaches that the IWF 16 is for interfacing landline data protocols with digital cellular radio protocols. See column 4, lines 55-63. Accordingly, the IWF is taught to provide a connection between mobile-specific protocols on the air interface and the landline-specific protocols used by data/fax transmissions. See column 4, line 66-column 5, line 2.

Additionally, when it is determined that a call is a data call, for example an asynchronous data service and/or facsimile service (ADS/G3Fax) call, and when it is further determined that the data call cannot be delivered to the subscriber, an appropriate transfer number is retrieved in order to transfer the data call. See column 5, lines 49-56. To do this, the call must be identified as a data call to the home location register/service control point (HLR/SCP) 15. See column 5, lines 57-58.

One way of identifying the type of call is by requiring the calling party to perform "two-stage dialing." Such a dialing procedure requires the caller to use a prescribed pilot number to pre-identify the type of call. See column 5, line 59-column 6, line 9. Another way to accomplish the data call identification is to assign a plurality of different numbers to the

called mobile station. Accordingly a different number is used for a data call than is used for a voice call. See column 6, lines 10-20. Finally, Joong teaches that other methods of identifying the call as a data call can also exist. For example, the call type may be identified directly from the ISDN user part, user service information field. See column 6, lines 21-27.

Thus, Joong teaches that when a call is determined to be a data call, and when no call can be connected to the mobile station, then the data call is transferred to an appropriate device.

Accordingly, with respect to claims 1 and 27, there is no teaching or suggestion by Joong that the mobile switching center detects the service option included in the signal transmitted from the base station and executes a circuit data service or a packet data service according to the detected service option. Rather, Joong simply identifies the call as a data call or a voice call.

Moreover, with respect to the IWF, there is no teaching or disclosure in Joong that a traffic channel of a mobile data path is established or that a call between a calling party mobile station and a called party mobile station is established, or that such establishment is performed when the MSC performs circuit data service. Rather, Joong teaches that no call is connected to the mobile station; instead the call is forwarded to another device. Additionally, Joong does not teach that the calling party is a mobile caller.

Finally, there is no teaching or suggestion in Joong that first and second data paths are established between the mobile switching center and the at least one mobile data network

interworking unit. Consequently, for at least these all of these reasons, it is respectfully submitted that Joong fails to teach or suggest all the features of claims 1 and 27.

Moreover, with respect to claims 10, 21, and 35, it is respectfully submitted that Joong fails to teach or suggest at least establishing a second call from the called party mobile station to the mobile data network interworking unit when a data response comes from the called party mobile station, and then establishing a second traffic channel after the mobile data path connection model informs the public network data path connection control module of a normal state of the first data path between a mobile switching center and the mobile data network interworking unit. The Patent Office asserts that Joong teaches such a feature at column 4, lines 55-61. However, as discussed above, this portion of Joong actually discusses only that the serving MSC has interworking function associated with it for interfacing landline data protocols with digital cellular radio protocols. There is thus no teaching or suggestion of the above described features.

For at least these reasons, it is respectfully submitted that Joong fails to teach or suggest the features of claims 10, 21, and 35.

With respect to claim 32, Joong fails to teach or suggest any of the specific claimed features. For example, Joong fails to teach or suggest at least a main processor to form a traffic channel of a mobile data path between a first mobile terminal and a second mobile terminal when a circuit data service option is detected by the mobile switching center from a base station. The Patent Office asserts that Joong teaches the main processor at column 5,

lines 27-35. This portion of Joong, however, relates to establishing a call from a PSTN. Specifically, as is known in the art, when an incoming call is received, the HLR is interrogated for the location of the called mobile station. Additionally routing instructions are provided from the MSC. The call is then connected to the mobile station. However, there is no teaching or suggestion of forming a traffic channel of a mobile data path between a first mobile station and a second mobile station to execute circuit data communication or packet data communication according to a received signal from a data path connection section.

Moreover, Joong fails to teach or suggest at least a circuit data processor, coupled to the main processor and configured to analyze a signal transmitted from the first mobile terminal if a protocol between the first mobile terminal and the second mobile terminal is normally executed, and transmitting an identification number from the second terminal to the main processor. The Patent Office asserts that Joong teaches a circuit data processor at column 5, lines 57-61. As discussed above, however, this portion of Joong teaches that a "two-stage" dialing procedure is used for Joong to determine the type of call at the HLR/SCP. There is thus no specific teaching or suggestion of a circuit data processor configured to analyze a signal transmitted from the first mobile terminal and to transmit an identification number from the second terminal to the main processor.

Finally, Joong fails to teach or suggest at least a switching circuit, configured to selectively switch a connection between a circuit data processor and the data path connector

in accordance with a control signal on the main processor to perform circuit data service, wherein the circuit data processor comprises at least one modem. The Patent Office asserts that Essigmann, in view of Joong teaches this feature, refers to column 4, line 45 - column 5, line 2 of Joong. As discussed above, this portion of Joong describes in general terms of function and operation of the IWF. Specifically, Joong teaches that the IWF is for interfacing landline data protocols with digital cellular radio protocols. Consequently, there is no specific teaching or suggestion of a switching circuit as recited in the claims.

Consequently, for at least these reasons, it is respectfully submitted that Joong fails to teach or suggest all of the features of claim 32.

Essigmann, either alone or in combination with Joong, also fails to teach or suggest all of the claimed features. For example, Essigmann relates to the communication of control data within a Shared Interworking Function of a telecommunications network. Specifically, control data is communicated between an interworking function and a Mobile Switching Center when interworking function services are required. Essigmann teaches establishing a first circuit call and a second circuit call between the Shared Interworking Function and the Mobile Switching Center.

However, Essigmann fails to teach or suggest at least detecting a service option included in the signal transmitted from the base station and executing a circuit data service or a packet data service according to the detected service option. Moreover, Essigmann fails to teach or suggest at least that a traffic channel of a mobile data path is established or that a

call between a calling party mobile station and a called party mobile station is established, or that such establishment is performed when the MSC performs circuit data service. Moreover, there is at least no teaching or suggestion in Essigmann that first and second data paths are established between the mobile switching center and the at least one mobile data network interworking unit. Finally, Essigmann fails to teach or suggest any structure for performing the above described features.

Additionally, the Patent Office does not rely on Essigmann to teach or suggest these features. Rather, the Pattern Office asserts only that Essigmann teaches a plurality of base stations and base station controllers for transferring a signal transmitted to and from mobile stations in a predetermined service area.

Consequently, for at least these reasons, it is respectfully submitted that the combination of Joong and Essigmann fails to teach or suggest all the claimed features. Accordingly, a prima facie case of obviousness cannot be made.

Claims 2-9 and 38-41 depend from claim 1, claims 11, 13, 14, 16, and 17 depend from claim 10, claim 22 depends from claim 21, claims 28-31 and 44-46 depend from claim 27, claims 47-49 depend from claim 32, and claims 36 depends from claim 35. These dependent claims are allowable for at least the reasons discussed above with respect to the corresponding independent claims as well as their additionally recited features. For at least all of these reasons, withdrawal of this rejection is respectfully requested.

**CONCLUSION**

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, Anthony H. Nourse, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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